USGS science for a changing world

Earthquake Shaking — Green Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

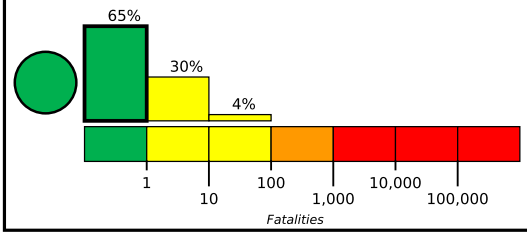
# M 5.4, 5km NNW of Guindapunan, Philippines

Origin Time: 2020-03-01 21:19:20 UTC (Mon 05:19:20 local)
Location: 11.3526° N 124.6857° E Depth: 10.0 km

**PAGER Version 5**

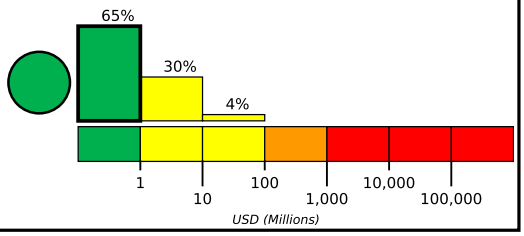
Created: 3 weeks, 4 days after earthquake

## Estimated Fatalities




Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

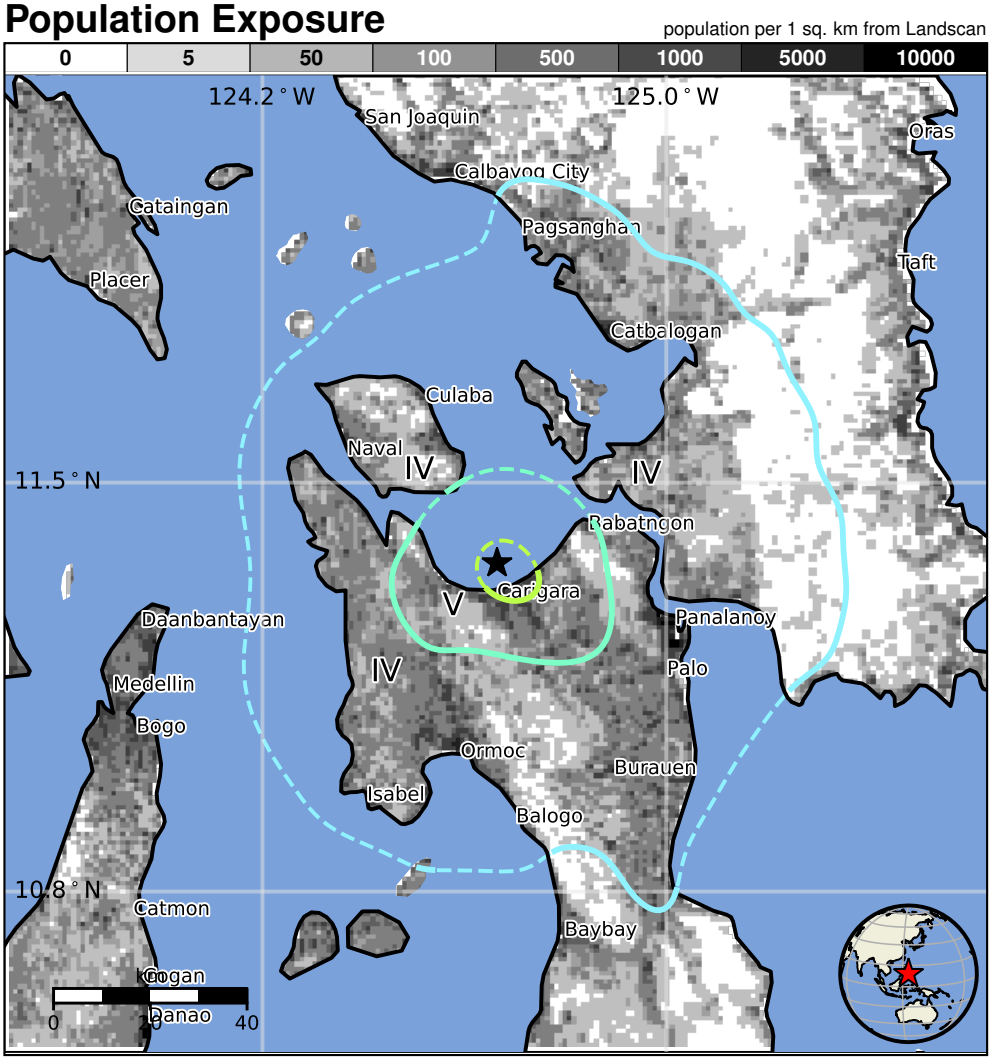



## Estimated Population Exposed to Earthquake Shaking

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ESTIMATED POPULATION EXPOSURE (k=x1000) | | –* | 1,686k* | 2,509k | 237k | 107k | 0 | 0 | 0 | 0 |
| ESTIMATED MODIFIED MERCALLI INTENSITY | | I | II-III | IV | V | VI | VII | VIII | IX | X+ |
| PERCEIVED SHAKING | | Not felt | Weak | Light | Moderate | Strong | Very Strong | Severe | Violent | Extreme |
| POTENTIAL DAMAGE | Resistant Structures | None | None | None | V. Light | Light | Moderate | Mod./Heavy | Heavy | V. Heavy |
| | Vulnerable Structures | None | None | None | Light | Moderate | Mod./Heavy | Heavy | V. Heavy | V. Heavy |

*Estimated exposure only includes population within the map area.

## Population Exposure




## Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

## Historical Earthquakes

| Date (UTC) | Dist. (km) | Mag. | Max MMI(#) | Shaking Deaths |
|---|---|---|---|---|
| 1999-12-15 | 19 | 4.8 | VI(34k) | 1 |
| 1987-05-23 | 380 | 5.7 | VII(70k) | 1 |
| 1973-03-17 | 306 | 7.5 | VIII(6k) | 15 |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

## Selected City Exposure

from GeoNames.org

| MMI | City | Population |
|---|---|---|
| **VI** | **Carigara** | **17k** |
| VI | Barugo | 7k |
| VI | Guindapunan | 2k |
| VI | Capoocan | 8k |
| V | Culasian | 2k |
| V | Tunga | 3k |
| **IV** | **Panalanoy** | **189k** |
| **IV** | **Ormoc** | **191k** |
| **IV** | **Catbalogan** | **68k** |
| **IV** | **Calbayog City** | **68k** |
| **III** | **Danao** | **70k** |

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

**https://earthquake.usgs.gov/earthquakes/eventpage/us600087il#pager**

**Event ID: us600087il**